PATENT ABSTRACTS OF JAPAN

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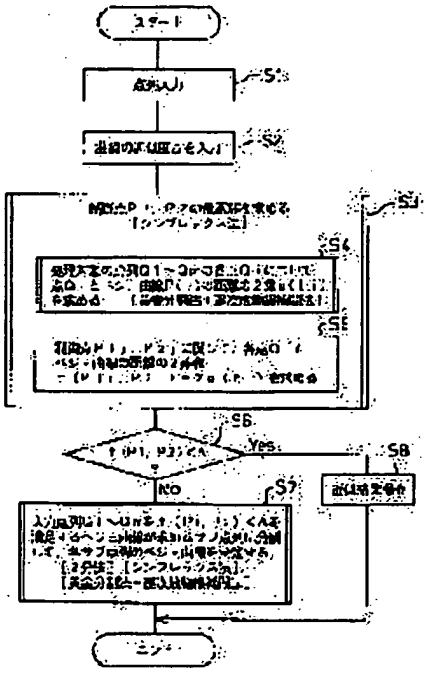
(54) METHOD FOR APPROXIMATING POINT SEQUENCE



(57)Abstract:

PURPOSE: To obtain a parametric function approximating a locus of a point sequence without deciding a position of a control point in advance.

CONSTITUTION: Optimum solutions P1, P2 of control points of a ternary Bezier curve are obtained by the simplex method being a 1st solution of the nonlinear programming (step S3). Square sums f (P1j, P2j) of a shortest distance from each point of a point series to the Bezier curve using objects P1j, P2j of optimum solutions of control points as an objective function of the simplex method (steps S4, S5). The (golden section + successive parabolic interpolation method) being other solution of the nonlinear programming is used in the steps S4, S5. Or when all of the input point series cannot be approximated by one Bezier curve, the point sequence is being divided into sub point series by the bisection method being a 3rd solution of the nonlinear programming and each sub point sequence is approximated by a Bezier curve (step S7). The sub point sequence is referred to as a longest point sequence approximated by a given approximation degree.

IDENTIFYING METHOD FOR FEEDBACK SYSTEM

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Publication date: 1988-11-16
Inventor: WATANABE MASAHIRO; YAMAMOTO SHIGEHIKO
Applicant: YOKOGAWA ELECTRIC CORP
Classification:
- international: ***G05B13/00; G05B13/02;*** **G05B13/00; G05B13/02;** (IPC1-7): G05B13/00
- European:
Application number: JP19870115092 19870512
Priority number(s): JP19870115092 19870512

Abstract of **JP63279301**

PURPOSE:To identify a feedback system in its closed loop state by converting the deviation between an output answer waveform of a process and an answer waveform received from a simulating function into a function of evaluation and changing the parameter of the simulating function by a nonlinear programming to define the parameter having the minimum function of evaluation as an estimated parameter. CONSTITUTION:The output answer waveform of a feedback system is observed and compared with an answer waveform received from a simulation means 2 of a process whose parameter is set under the initial conditions. The deviation of answer between both waveforms is converted into a function of evaluation and the parameter of the function 2 is changed by a nonlinear programming means 4. Thus a parameter having the minimum function of evaluation is obtained and defined as an estimated parameter of the process. In such a way, the process can be accurately carried out in its closed loop state. Then it is possible to identify a real plant without setting it under a dangerous state of an open loop.